
PRI installation: 81/ 81C

PRI circuit card locations

Each PRI circuit card requires two adjacent slots on a shelf. As many as five circuit cards can be plugged into an empty network shelf, along with the power converter card, depending on the shelf type.

Cable requirements

Shielded 22 AWG (0.644 mm) cable is recommended for connecting the PRI to the cross-connect point. This cable consists of two shielded twisted-pair conductors and two shields.

The transmit and the receive pairs must be individually shielded and enclosed in a polyvinyl jacket. This type of cable is commonly referred to as “6-conductor” cable. T1 cable shielding should be grounded at the cross-connect point.

To manufacture cables of different lengths than the standard cables provided, refer to [“PRI cabling information” on page 169](#).

Installing the QPC720 PRI

This procedure describes how to install the QPC720 PRI card in an 81/81C.

Procedure 10

Installing the QPC720 PRI in an 81/81C

- 1 Determine the location of the circuit card to be installed. The following slots can be used if they are not required for other cards.

Table 17

Shelf and slot location of QPC720 in 81

System	Shelf	Slot
81/81C	Core	0-3
	Network Module	5–10, 13–14
	RPE	1, 11, 12

- 2 Unpack and inspect circuit cards.
- 3 Set option switches on the PRI circuit card. (Figure 23 and Table 18.)
- 4 Install PRI QPC720 card in the assigned shelf and slot.
- 5 Install network QPC414 card (if no network loop connection is available).
- 6 If required, install I/O adapters in I/O panel.
- 7 Run and connect the PRI cables. Figures 21 and 22 show the 81/81C PRI cabling. Refer also to Table 19.
- 8 If required, install connecting blocks at MDF or wall-mounted cross-connect terminal.
- 9 If required, designate connecting blocks at MDF or wall-mounted cross-connect terminal.
- 10 If required, install CSU or Echo Canceller.
- 11 Cross-connect PRI cables.
- 12 Add related configuration data into Meridian 1 system memory. Refer to the work order.
- 13 Run PRI verification tests.

Figure 21
Option 81/81C cabling without Echo Canceller

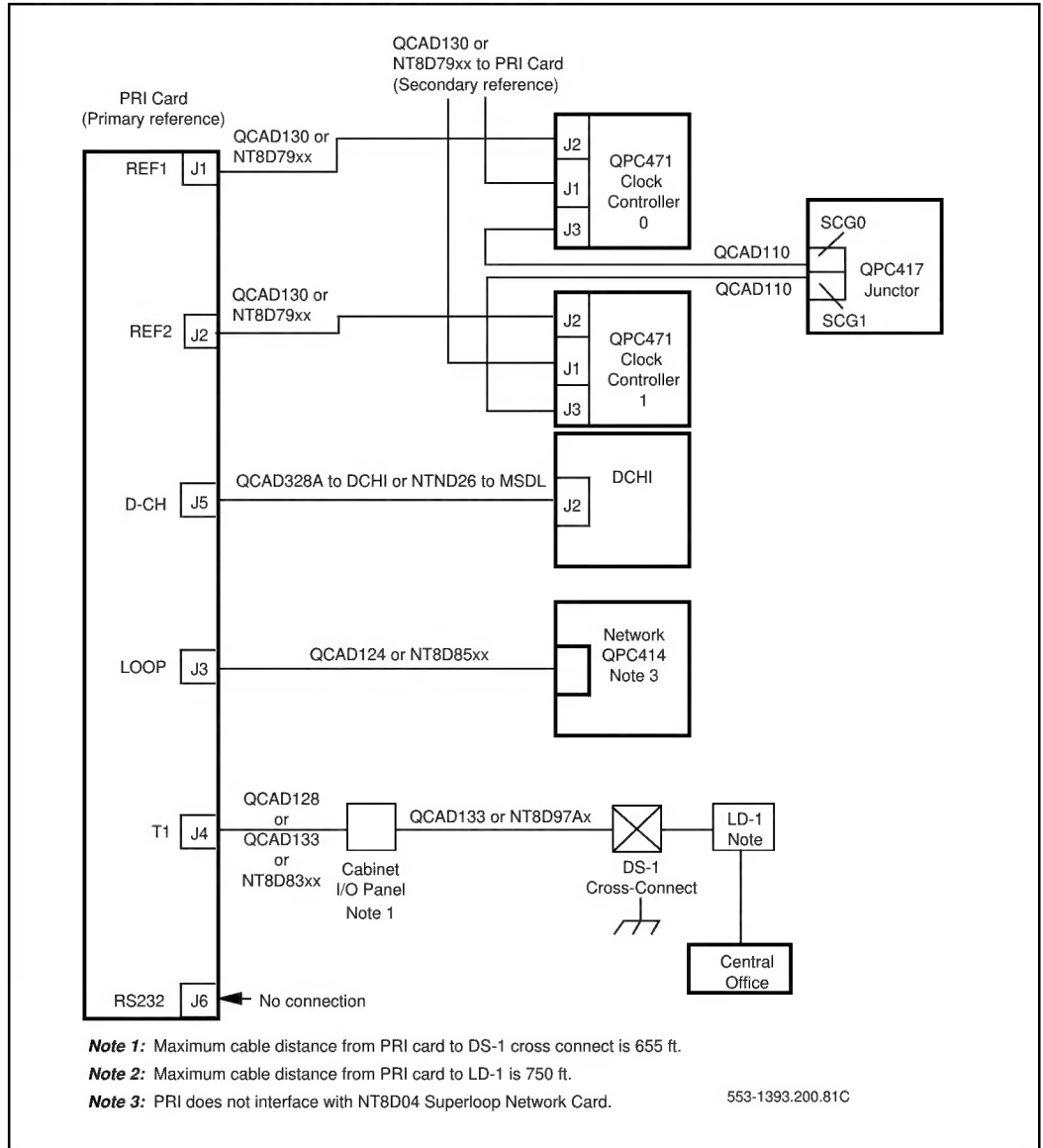


Figure 22
81/81C cabling with Echo Cancellor

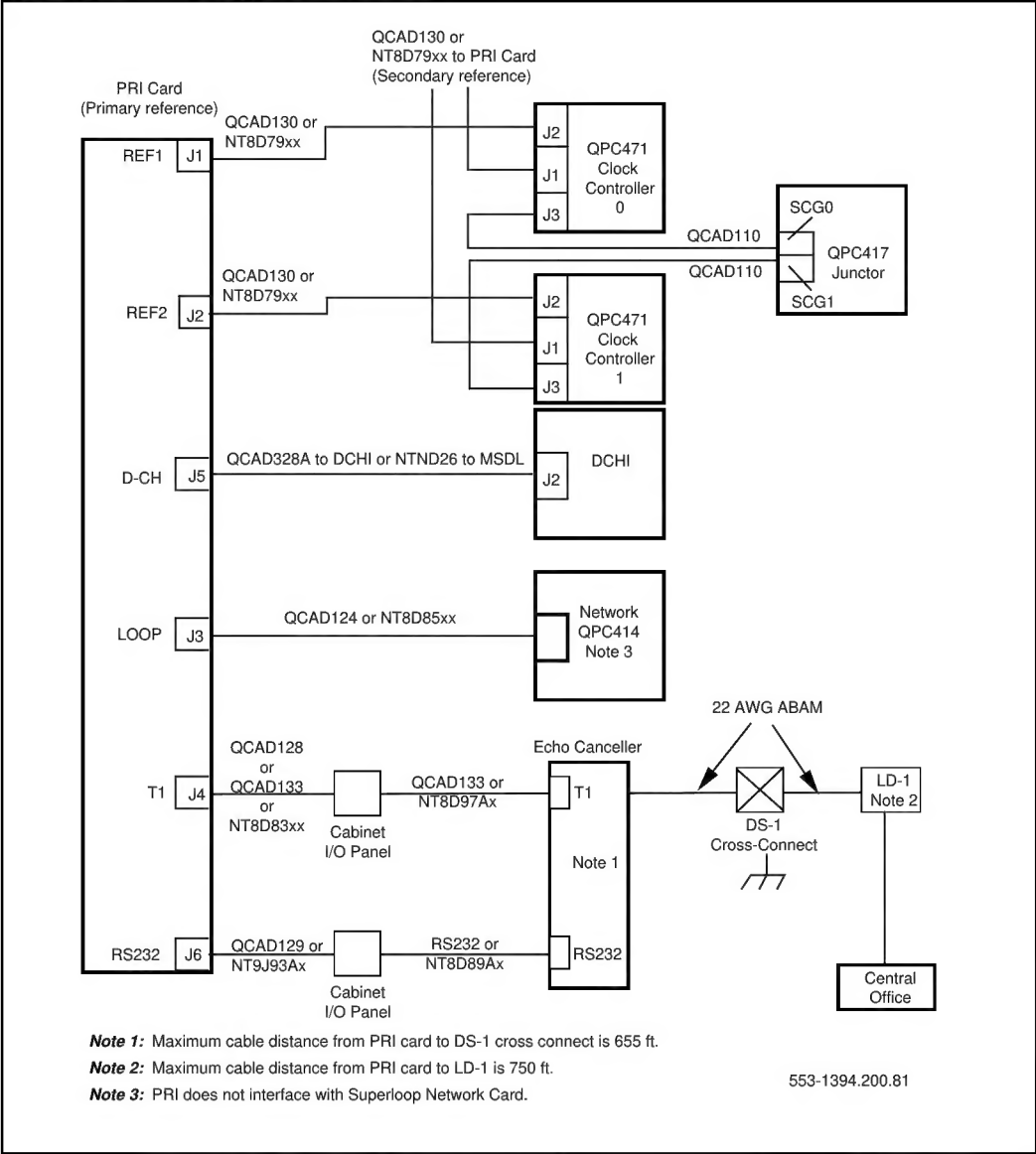


Figure 23
Option switch settings for PRI circuit card

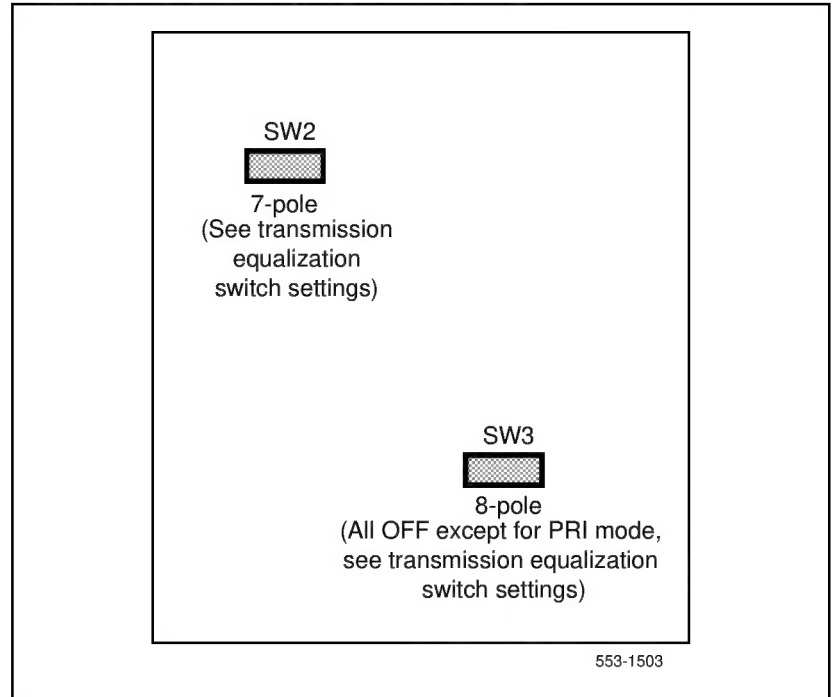


Table 18
Transmission equalization switch settings for PRI

Switch S2 settings	To repeated facility	To cross-connect point
5 on	0–45 m (0–150 ft)	0–30 m (0–100 ft)
2, 4, 6 on	46–135 m (151–450 ft)	31–100 m (101–355 ft)
1, 3, 7 on	136–225 m (451–750 ft)	101–200 m (356–655 ft)
Switch 3 option for DTI with ESF SW3–1 on = extended superframe format (ESP) off = superframe format (SF)		
Note 1: All positions on S2 (location B22) are OFF except as shown under the column labeled “Switch S2 settings.” Note 2: The switch 3 option for DTI with ESF applies to only X11 release 16, 17, and 18. All other positions on the 8-pole SW3 (location E37) should be OFF. Note 3: Prior to X11 release 19 (releases 16, 17, and 18), you must set the framing format as ESF with the DLOP prompt in LD 17 before you set SW3–1 on the card for the DTI with ESF option. Note 4: Beginning with X11 release 19, framing format, line encoding, and method of yellow alarm are selectable for both DTI and PRI in LD 17 with the DLOP, LCMT, and YALM prompts. All SW3 switch positions should be OFF.		

Table 19
Cable connections and destinations for 81/81C (Part 1 of 2)

Cable	From	Des.	Con.	To	Des.	Con.	Notes
QCAD130 NT8D79xx	QPC720			J1	QPC471 QCP775	CC-0	Only when primary clock source
QCAD130 NT8D79xx	QPC720			J1	QPC471 QCP775	CC-0	Only when secondary clock source
QCAD130 NT8D79xx	QPC720			J2	QPC471 QCP775	CC-1	Only when primary clock source
QCAD130 NT8D79xx	QPC720			J2	QPC471 QCP775	CC-1	Only when secondary clock source
QCAD110 NT8D74xx	QPC471 QCP775	CC-0	J3	QPC417	JCTR	J11	Multi-group junctor board connection
QCAD110 NT8D74xx	QPC471 QCP775	CC-1	J3	QPC417	JCTR	J12	
QCAD124 NT8D85xx	QPC720		J3	Network			Run to connector on network pack
QCAD328	QPC720		J5	QPC757		J2	Run directly to DCHI card
NTND26	QPC720		J5	NT6D80			X11 release 18 and later
QCAD128 NT8D83xx	QPC720		J4	I/O Panel			Run via cabinet I/O panel to CSU, Echo Cancellor, or cross-connect terminal

Table 19
Cable connections and destinations for 81/81C (Part 2 of 2)

Cable	From	Des.	Con.	To	Des.	Con.	Notes
QCAD133 NT8D83xx	I/O Panel			Patch Panel			Run via cabinet I/O panel to CSU, Echo Cancellor, or cross-connect terminal
QCAD129 NT9J93xx	QPC720		J6	I/O Panel			Run via cabinet I/O panel to CSU, Echo Cancellor, or cross-connect terminal
RS-232	I/O Panel			Echo Cancellor			
RS-232	QPC720		J6	Echo Cancellor			Run via cabinet I/O panel to Echo Cancellor or cross-connect terminal from non-shielded system
QCAD133 NT8D83xx	QPC720		J4	Patch Panel			Run via cabinet I/O panel to Echo Cancellor or cross-connect terminal from non-shielded system
RS-232	QPC720		J6	Echo Cancellor			Run via cabinet I/O panel to Echo Cancellor or cross-connect terminal from non-shielded system

Removing the QPC720 PRI

The following procedure explains how to remove the PRI card from the 81/81C.

Procedure 11

Removing the QPC720 PRI from 81/81C

- 1** Disable the D-channel in LD 96.
- 2** Disable Network Loop using LD 60. The command is DISL x.
- 3** If the circuit card is being completely removed, not replaced, remove data from memory. See *ISDN Primary Rate Interface description and administration* (553-2901-100).
- 4** Determine the location of the circuit cards to be removed.
- 5** Remove cross connections at MDF to wall-mounted cross-connect terminal.
- 6** Disconnect PRI cables at Echo Cancellor and at carrier interface (for example, Office Repeater and NCTE equipment).
- 7** Tag and disconnect cables from card. Rearrange Clock Controller card cables if required. This will affect call processing on DTI/PRI loops.
- 8** Remove PRI and network circuit cards. If the other circuit of a dual network card is in use, DO NOT remove the network card.
- 9** Pack and store circuit card.